

Abstract of the Disclosure

An arrayed waveguide grating type optical multiplexer/demultiplexer of the invention eliminates the temperature dependency of the light transmission center wavelengths and suppresses an increase in insertion loss with a simple configuration even under the conditions of high temperature and high humidity. A waveguide forming area comprising an optical input waveguide, a first slab waveguide, an arrayed waveguide formed of a plurality of channel waveguides arranged side by side having a different length each other, and a plurality of optical output waveguides connected one by one is formed on a substrate. For example, the first slab waveguide is separated at crossed separation planes that cross the path of light passing through the first slab waveguide. On the crossed separation planes, a matching grease is applied. A thin film member for covering the area arranged with the matching grease is disposed to suppress the evaporation of the matching grease.